

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

WHAT IS CLAIMED IS:

1-32 Canceled

33. (New): A method of treating waste matter from animals, the method comprising:

- a) collecting waste matter from the animals;
- b) inhibiting urease activity in said collected waste matter; and
- c) separating said urease-activity inhibited waste matter into a urea-rich fraction essentially consisting of a liquid comprising urea and other components soluble in liquid manure and a urea-lean fraction;

wherein said inhibition comprises reversible inhibiting urease activity of said collected waste matter before said separation of said urease-activity inhibited waste matter into said urea-rich fraction and said urea-lean fraction.

34. (New): The method according to claim 33, wherein said inhibition comprises irreversibly inhibiting urease activity.

35. (New): The method according to claim 33, wherein said inhibition comprises a reversible inhibition of urease activity comprising treating said collected waste matter, said urea-rich fraction, or both, by a method comprising: decreasing and/or increasing pH; buffering pH; decreasing and/or increasing temperature; decreasing and/or increasing pressure; decreasing and/or increasing ionic strength, or a combination thereof.

36. (New): The method according to claim 34, wherein said inhibition comprises a irreversible inhibition of urease activity comprising treating said collected waste matter, said urea-rich fraction, or both, with an irreversible inhibitor, said inhibitor being selected among the group comprising:

urea compounds such as hydroxyurea, selenourea, phenylurea, thiourea;
hydroxamates such as amino acid hydroxamates, acetohydroxamate;
benzoates such as p-substituted mercuribenzoate, p-chloromercuribenzoate, p-hydroxymercuribenzoate, iodosobenzoate;
sulfonates such as p-chloromercuribenzenesulfonate;
imides such as N-ethylmaleimide;
phosphor compounds such as phosphoramidate, phosphate;
monovalent ions such as F^- , Na^+ , and K^+ ;
divalent metal ions such as Hg^{2+} , Cu^{2+} , Fe^{2+} , Co^{2+} , Zn^{2+} , Ni^{2+} , Mn^{2+} , Cd^{2+} , Ag^+ , Mg^{2+} (weak), Ba^{2+} , preferably Cu^{2+} , Ag^+ , or Pb^{2+} , or a combination thereof in form of at least one water-soluble salt, and/or at least one electrochemically-released ion;
trivalent ions such as As^{3+} ; and
at least one nickel-complexing agent, preferably dimethylglyoxime, ethylenediamine, EDTA, or a combination thereof, and
other compounds such as beta-mercaptoethanol, iodine, suramin, phenylsulfinate, and furacin.

37. (New): The method according to claim 33, said method comprising:
a) reversibly inhibiting urease activity in said collected waste matter;
b) separating said reversibly urease-activity inhibited waste matter into a urea-rich fraction and a urea-lean fraction; and
c) irreversibly inhibiting urease activity in said urea-rich fraction.

38. (New): The method according to claim 37, wherein said urea-lean fraction is in form of a liquid, a solid, or a combination thereof, or in form of a dried solid.

39. (New): The method according to claim 36, wherein said irreversible inhibitor is recovered from said irreversibly urease-activity inhibited and separated urea-rich fraction.

40. (New): The method according to claim 33, wherein said waste-matter comprises feces and liquid manure from farm animals.

41. (New): A urea-rich animal waste-matter product, the product comprising urea produced from a urea-rich fraction of waste matter from animals wherein the waste matter has been treated by a method as defined in claim 33, said urea-rich animal waste-matter product exhibiting a reversible inhibition of urease catalytic activity.

42. (New): The product according to claim 41, wherein said urea-rich fraction exhibits substantially no urease activity, preferably less than 50 unit/ml, more preferred less than 20 unit/ml, most preferred less than 5 unit/ml.

43. (New): The product according to claim 41, wherein said urea-rich fraction exhibits minor residues of irreversibly urease-activity inhibitors.

44. (New): The product according to claim 41, the product comprising animal waste-matter indicators, preferably Na^+ , K^+ , Ca^{2+} , PO_4^{2-} , bilirubin, albumin, uric acid in ranges 200 mmol/l to 5 $\mu\text{mol/l}$.

45. (New): A method of producing urea-formaldehyde from waste matter of animals, the method comprising:

a) producing a urea-rich fraction of the waste matter from the animals by a method comprising:

- i) collecting waste matter from the animals;
 - ii) inhibiting urease activity in said collected waste matter; and
 - iii) separating said urease-activity inhibited waste matter into a urea-rich fraction essentially consisting of a liquid comprising urea and other components soluble in liquid manure and a urea-lean fraction; said inhibition comprising reversible inhibiting urease activity of said collected waste matter before said separation of said urease-activity inhibited waste matter into said urea-rich fraction and said urea-lean fraction; and
- b) reacting said urea-rich fraction with methanal.

46. (New): The method according to claim 45, wherein said waste matter comprises feces and liquid manure from farm animals.

47. (New): The method according to claim 34, wherein said inhibition comprises a reversible inhibition of urease activity comprising treating said collected waste matter, said urea-rich fraction, or both, by a method comprising: decreasing and/or increasing pH; buffering pH; decreasing and/or increasing temperature; decreasing and/or increasing pressure; decreasing and/or increasing ionic strength, or a combination thereof.

48. (New): The product according to claim 42, wherein said urea-rich fraction exhibits minor residues of irreversibly urease-activity inhibitors.